Supplementary Compatibility Guidelines for Analytical Services and Analytical Tools

DRAFT DRAFT DRAFT

Definitions

An **analytical service** is a published API which receives data in the form of objects and performs computations based upon the input data, and returns information to a client via caGrid in the form of one or more objects. An **analytical tool** is a client application that retrieves information from one or more caGrid nodes and performs computations upon that data locally; the results from such computations are retained locally and not communicated back to the user via caGrid.

Analytical Services Proposal

1. All inputs and outputs of the analytical service will consist of following categories:
    a. Instances of objects whose metadata are fully registered in the caDSR.
    b. Serialized aggregations of objects (in the form of XML) whose metadata are fully registered in the caDSR

2. Runtime parameters must be included in input objects; individual data elements are not satisfactory. It is acceptable to create a special purpose object that aggregates many runtime parameters so long as the metadata for this object is represented in the caDSR.

3. Analytical Services must provide appropriate service level metadata. This metadata will exist in the form of an object model that exists in the caDSR. The object model is attached to this document.

4. Internal classes (i.e. any class that is not exposed as part of the input or output API) do not need to be registered in the caDSR.

Analytical Tools Proposal

1. All Grid supplied inputs of the analytical service will consist of following categories:
    a. Instances of objects whose metadata are fully registered in the caDSR.
    b. Serialized aggregations of objects (in the form of XML) whose metadata are fully registered in the caDSR

2. Because analytical tools do not provide data back to the Grid, they are not required to provide service level metadata.